

**67565** – 10.4 grams

**67668** – 3.6 grams

Impact Melt Breccia



Figure 1: Photo of 67565. Scale in mm. S80-35154

## Introduction

67565 and 67668 are rake samples from the south rim of North Ray Crater – see sections on 67481 and 67601. They have similar micropoikilitic texture with interlocking oikocrysts of pyroxene surrounding chadocrysts of plagioclase. Ilmenite is concentrated at the boundaries of the pyroxene oikocrysts. They also have similar composition.

## Chemistry

Stöffler et al. (1985) reported the bulk composition based on defocused beam analysis of thin sections. Wanke received splits for analysis.

## Processing

There is one thin section of each (figure 3).

**Table 1. Chemical composition of 67565**

|                                | 67565               | 67668 |     |
|--------------------------------|---------------------|-------|-----|
| reference                      | Stöffler85          |       |     |
| weight                         |                     |       |     |
| SiO <sub>2</sub> %             | 46.2                | 46.5  | (a) |
| TiO <sub>2</sub>               | 0.55                | 0.63  | (a) |
| Al <sub>2</sub> O <sub>3</sub> | 21.9                | 20.8  | (a) |
| FeO                            | 5.8                 | 6.3   | (a) |
| MnO                            | 0.07                | 0.08  | (a) |
| MgO                            | 11.4                | 11.7  | (a) |
| CaO                            | 13                  | 13.1  | (a) |
| Na <sub>2</sub> O              | 0.43                | 0.44  | (a) |
| K <sub>2</sub> O               | 0.21                | 0.21  | (a) |
| P <sub>2</sub> O <sub>5</sub>  | 0.19                | 0.2   | (a) |
| S %                            |                     |       |     |
| sum                            |                     |       |     |
| (a)                            | broad beam e. probe |       |     |



Figure 2: Photo of 67668. Scale in mm. S72-49541

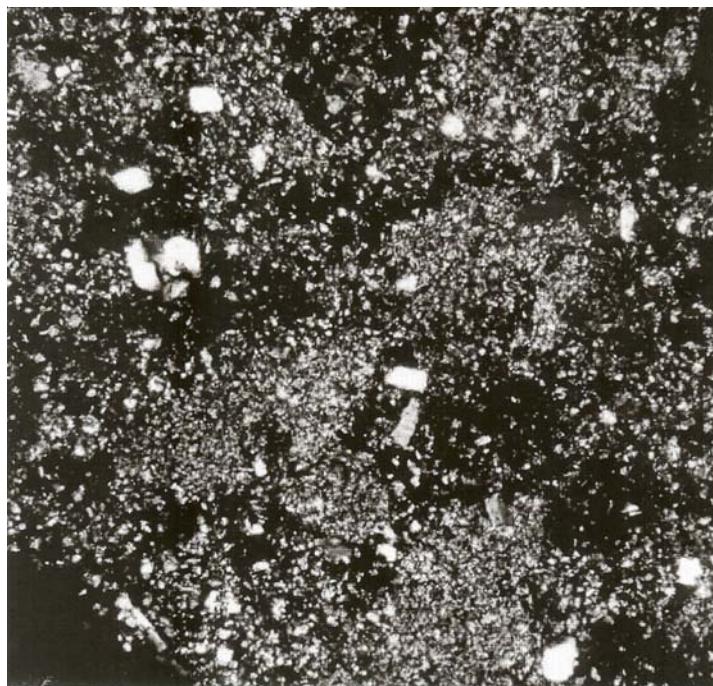
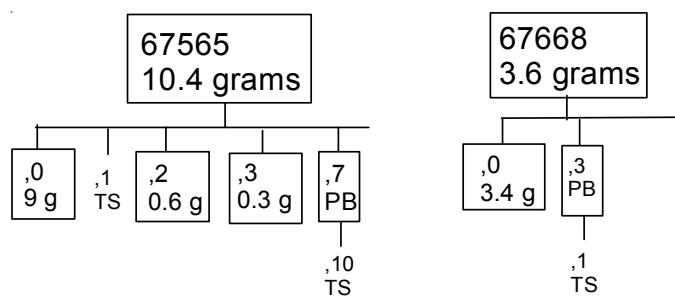
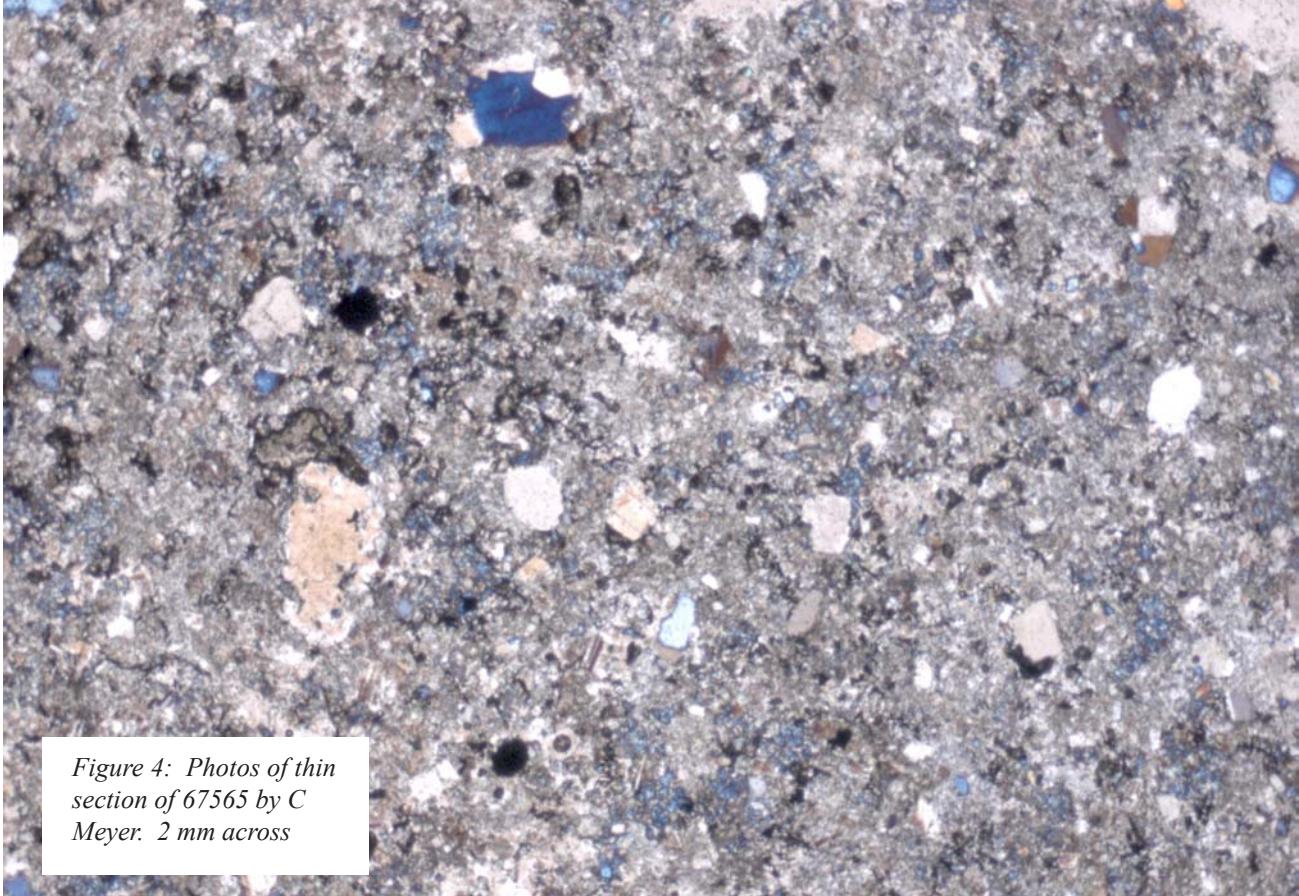
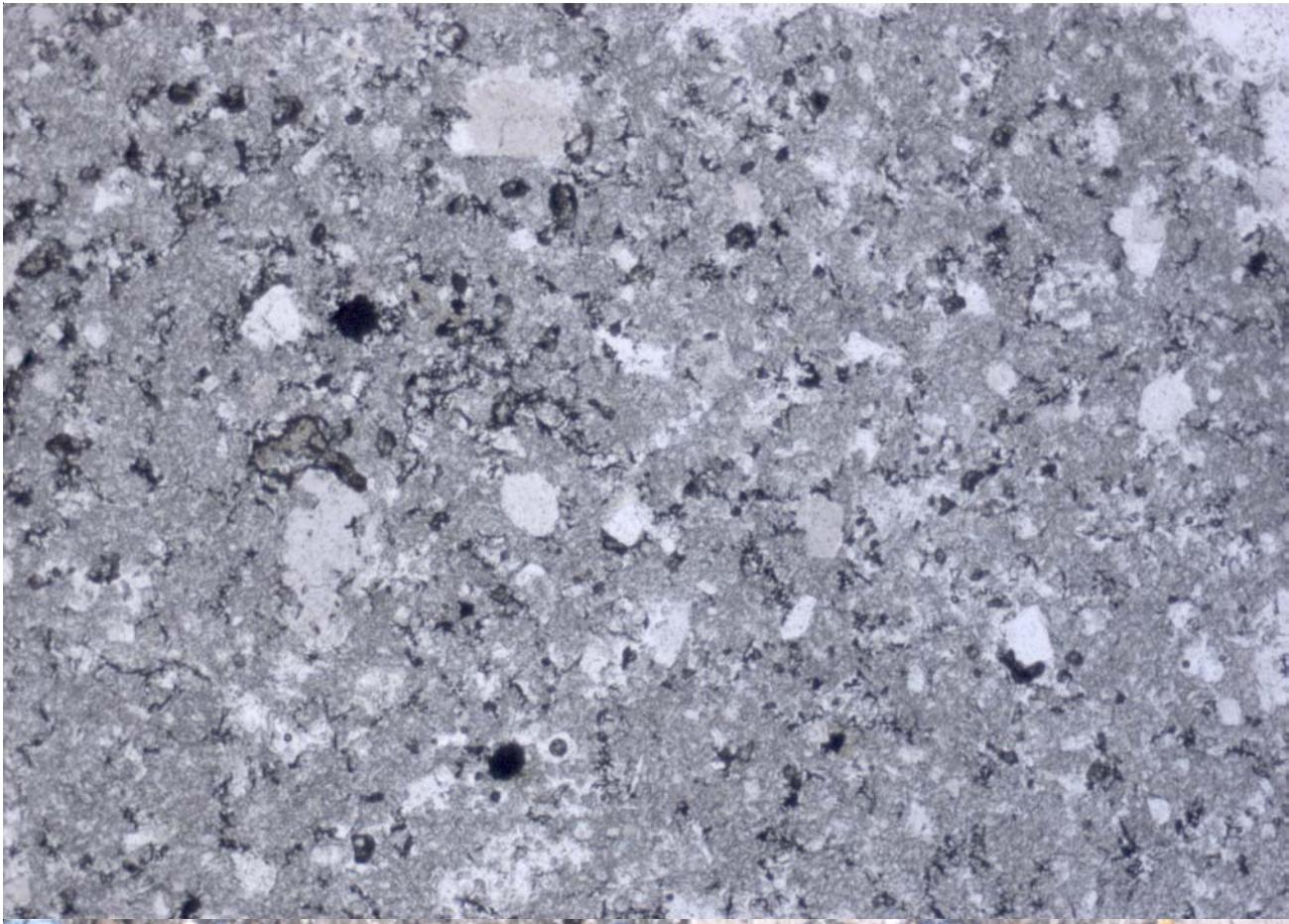


Figure 3: Thin section, with crossed nicols, of 67668 showing poikilitic texture.





*Figure 4: Photos of thin section of 67565 by C Meyer. 2 mm across*

## References for 67565 and 67668

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